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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,569	12/22/2003	Jeffrey D. Rupp	FGT 1852 PA	1568

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EXAMINER

HERNANDEZ, OLGA

ART UNIT	PAPER NUMBER
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2144

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/707,569

Applicant(s)

RUPP, JEFFREY D.

Examiner

Olga Hernandez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11/2/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 11/2/04 have been fully considered but they are not persuasive. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-10, 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirabayashi et al (5,874,904).

As per claims 1 and 9, Hirabayashi discloses a single vision sensor having apposition on the vehicle, detecting at least one object, and generating at least one object detection signal; and a controller coupled to the vision sensor and generating a safety system signal in response to the position and the at least one object detection signal (figures 1, 7, 8, 14, 19 and 21, columns 1 and 2). Hirabayashi discloses the claimed invention except for the coordinates. It would have been obvious to one skill in the art that omission of an element and its function in a combination where the remaining elements perform the same function involves only routine skill in the art. In re Karlson, 136 USPQ 184.

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As per claim 2, Hirabayashi discloses the use of images, which is inherent, they are two-dimension.

As per claim 3, Hirabayashi discloses the use of a CCD linear sensor (column 1, lines 31-35).

As per claims 5, 6 and 10, Hirabayashi discloses determining the position of the vision sensor relative to a predetermined reference on the vehicle (column 1, lines 60-67 and column 2, lines 1-13).

As per claims 7 and 15-17, Hirabayashi discloses the size and up-angle of the at least one object and in response thereto determines range of the at least one object (column 2, lines 65-67 and column 3, lines 1-20).

As per claim 8, Hirabayashi discloses a memory coupled to the controller and storing information regarding the position (figure 24).

As per claims 13 and 14, Hirabayashi discloses determining object parameters and generating the safety system signal in response to the object parameter (column 3, lines 30-53).

3. Claims 4 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirabayashi et al (5,874,904) in view of Breed et al (6,405,132).

As per claims 4 and 18, Hirabayashi does not teach the use of a cruise control. However, teaches it in column 9, lines 50-52. Therefore, it would have been obvious to one skill in the art to combine the aforementioned inventions in order to avoid accidents.

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirabayashi et al (5,874,904).

Hirabayashi does not teach determining the at least one object to be at the same elevation at the vehicle; and generating the object detection signal in response to the initial determination. However, as the claim specifies is an assumption, which is the same as the prior art does, when determines range of the at least one object (column 2, lines 65-67 and column 3, lines 1-20).

5. Claims 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirabayashi et al (5,874,904) in view of Kurahashi et al (5,529,139).

As per claim 12, Hirabayashi does not teach reducing the speed of the at least one detected object when the size of the object appear to increase. However, Kurahashi teaches how to control the speed of the detected object/vehicle based on the distance between vehicles, which is the same when increase the size of the detected object (abstract). Therefore, it would have been obvious to one skill in the art to combine the aforementioned inventions in order to maintain constant inter-vehicle distance.

As per claim 20, Hirabayashi discloses a single vision sensor having apposition on the vehicle, detecting at least one object, and generating at least one object detection signal; and a controller coupled to the vision sensor and generating a safety system signal in response to the position and the at least one object detection signal (figures 1, 7, 8, 14, 19 and 21, columns 1 and 2); the size and up-angle of the at least one object and in response thereto determines range of the at least one object (column 2, lines 65-67 and column 3, lines 1-20). Hirabayashi does not teach reducing the speed of the at least one detected object when the size of the object appear to increase. However, Kurahashi teaches how to control the speed of the detected object/vehicle based on the distance between vehicles, which is the same when increase the size of the detected

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object (abstract). Therefore, it would have been obvious to one skill in the art to combine the aforementioned inventions in order to maintain constant inter-vehicle distance.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Hernandez whose telephone number is (703) 305-0918. The examiner can normally be reached on Monday through Thursday from 6:00 am to 4:30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on (571) 272-3925. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Olga Hernandez  
Examiner  
Art Unit 2144



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